

Chapter 340

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340.01 General

This chapter complements Chapter 325 by providing guidance for development of minor operational enhancement projects. Do not use this chapter to develop preservation or improvement projects. Refer to Chapter 325 for guidance in development of preservation and improvement projects and also for projects initiated by local agencies or developers. The minor operational enhancement matrices contained in this chapter identify the design level(s) for a project, the associated approval level, and the documentation requirements for the most common minor operational enhancement projects and focus on the various elements of greatest concern during project development.

Minor enhancement projects are categorized as low-cost enhancements, to improve the operational safety and efficiency of the highway system. These enhancements are most often installed by state forces through work orders, but may be accomplished through: a stand-alone state contract funded entirely through the Q Program, a Q Program funded bid item within a larger improvement project, a change order to an existing state contract, or agreements with local agencies. An important characteristic of these projects is the ability to quickly develop and implement them without a cumbersome approval process. Balanced with that is a need to apply consistency in design policies and guidelines in the development and approval

processes. Therefore, the intent of this chapter is to clarify the design guidelines and documentation requirements for minor operational enhancement projects without unduly impeding the process.

The objective of the Q Program is to maximize highway transportation system safety and efficiency through a statewide program focused on the WSDOT business function for “Traffic Operations.” It is the smallest of the four major highway programs that comprise the Highway System Plan (i.e. Improvement, Maintenance, Preservation, and Traffic Operations). Elements within the Q Program include: Q1 – Traffic Operations Program Management, Q2 – Traffic Operations Program Operations, and Q3 - Special Advanced Technology Projects. This chapter is intended to guide the development of projects in the Low Cost Enhancements subcategory within the Q2 program. Large capital improvement projects developed for the Q3 subprogram are beyond the scope and intent of this chapter. Normally, these projects are developed using *Design Manual* guidelines for Preservation and Improvement Program projects. Consult the Headquarters Traffic Office for guidance when designing Q3 subprogram projects.

The minor operational enhancement matrices consisting of three tables are identified by route type. One of the matrices applies to Interstate and NHS freeways, one applies to NHS Non-freeway routes, and the third matrix applies to non-NHS routes.

340.02 References

Revised Code of Washington (RCW) 47.28.030, Contracts — State forces — Monetary limits — Small businesses, minority, and women contractors — Rules.

Chart of Accounts, M 13-02, WSDOT

340.03 Definitions

The **National Highway System (NHS)** See Chapter 325 for definition and a list of specific routes on the NHS.

The term **freeway** applies to multilane, divided highways with full access control.

The **minor operational enhancement projects** usually originate from the Q2 component of the Q Program and are quick responses to implement low cost improvements.

Projects are typically narrow in scope, and focus on improvements to traffic operations, and modifications to traffic control devices. Guidance on the type of work included in the Q subprograms is in the *Chart of Accounts* (M 13-02).

(1) Project Types

Regulatory projects include actions undertaken to manage or regulate traffic conflict, movements, and use of the roadway. Potential projects in this category include revisions to speed limits, parking restrictions, turn restrictions, truck restrictions, signal operations, unsignalized intersection control, intersection lane use control, ramp meters, no passing zones, crosswalks, special traffic control schemes, and lane use restrictions.

Driver guidance projects are actions to improve driver guidance, clarify options, or reduce hazard in the roadway setting. Potential projects include revisions to, informational signs, warning signs, lighting and supplemental illumination, supplemental delineation, glare screen, signals, roadside guidance, and intelligent transportation systems (ITS).

Pavement widening projects are expansion of the roadway surface for vehicular use and may involve earthwork, drainage, and paving elements. Consult with the regional bicycle/pedestrian coordinator to ensure that the concerns of bicyclists and pedestrians are given adequate consideration. These projects are considered alterations of the roadway and must address Americans with Disabilities Act (ADA) accessibility for pedestrians. See Chapter 1025 for guidance on pedestrian facilities. Potential projects are:

- Turn lane — Addition of a new channelized turn bay at an intersection.
- Pullout — Pavement widening to provide auxiliary highway uses including transit

stops, Washington State Patrol (WSP) enforcement pullouts, snow chain-up areas, and maintenance vehicle turnouts.

- Expansion — Widen at intersection corners, lengthen existing channelized turn bay, widening shoulders, and flattening approach taper. This type of work is not anticipated for main line sections on Interstate freeways.
- Median crossover — Restricted-use median crossover on separated highways for emergency or maintenance use. See Chapter 960 for design of median crossovers.

Rechannelize existing pavement projects alter the use of the roadway without additional widening. These projects may add, delete, or modify channelization features, and may include reduction of existing shoulder or lane widths. Consult with the regional bicycle/pedestrian coordinator to ensure that the concerns of bicyclists and pedestrians are given adequate consideration. Projects that change the traffic configuration by reducing shoulders to add turn lanes are considered an alteration of the existing roadway and have the same requirements for preservation projects as it relates to pedestrian facilities for ADA accessibility. See Chapter 1025 for guidance on pedestrian facilities.

Potential projects are:

- Pavement markings — Develop added storage, additional lanes, or altered lane alignment. This work may modify tapers or radii, modify painted islands, channelize bicycle lanes, preferential-use lanes or shoulders.
- Raised channelization — New or altered raised curbing to channelization islands to enhance guidance, curtail violation or misuse, or introduce access control.
- Left-Turn Channelization (2-Lane Highways) — Restriping two-lane highways with a minimum pavement width of 39 feet, to provide left-turn channelization at existing intersections. Restripe to provide a minimum of 11-foot lanes and 3-foot shoulders. Ensure that the pavement is structurally adequate for the anticipated traffic loads. Within this configuration at T-Intersections, a reduced

length refuge lane may be provided for traffic entering the main line from the intersecting roadway. See Figure 340-6 for minimum dimensional characteristics of the refuge lane.

Nonmotorized facilities projects add adjacent roadside features for bicycle or pedestrian use. Involve the regional bicycle/pedestrian coordinator in the project development process.

Potential projects are:

- **Sidewalk** — Installation of sidewalks, which might involve preserving existing shoulder, or converting some portion of existing shoulder for use as a new sidewalk.
- **Walkway** — Adds to the existing roadway's overall width to provide a wider walkable shoulder.
- **Separated Trails** — Class 1 separated bike lane or pedestrian paths on independent alignment or parallel to the highway.
- **Spot Improvement** — Installation of ADA sidewalk curb cuts, new pedestrian landings, sidewalk bulbouts at intersections, or new or revised trailhead features.

Roadside projects are modifications to roadside features for safety purposes. Potential projects are:

- **Cross section** — Altering roadway cross sections to address clear zone hazard or sight distance concern such as slope flattening, recontouring a ditch, closing a ditch with culvert, or removal of hazard.
- **Protection** — Installation of hazard protection for clear zone mitigation including guardrail, barrier, and impact attenuator.
- **New object** — Placement of new hardware or fixed object within clear zone unable to meet breakaway criteria.

(2) **Design Elements**

The following elements are shown on the minor operational enhancement matrices. If full design level applies see the chapters listed below. If modified design level applies, see Chapter 430.

Sight Distance refers to any combination of horizontal and vertical stopping sight distance, decision sight distance, passing sight distance, and intersection sight distance. See Chapters 650 and 910 for definitions and guidance.

Lane Width See Chapter 325 for definition.

Lane Transition See Chapter 325 for definition.

Shoulder Width See Chapter 325 for definition.

Fill/Ditch Slope See Chapter 325 for definition.

Clear Zone See Chapter 325 for definition.

Ramp Sight Distance refers to any combination of horizontal and vertical stopping sight distance, decision sight distance, and intersection sight distance. See Chapters 650 and 910 for definitions and guidance.

Ramp Lane Width is the lane width for ramp alignments. See Lane Width definition in Chapter 325.

Ramp Lane Transition is the lane transition applied to a ramp alignment. See definition for Lane Transition in Chapter 325. Also see Chapter 940.

Ramp Shoulder Width is the shoulder width for a ramp alignment. See Shoulder Width definition in Chapter 325.

Ramp Fill/Ditch Slopes is the fill/ditch slope along a ramp alignment. See Fill/Ditch Slope definition in Chapter 325.

Ramp Clear Zone is the clear zone along a ramp alignment. See Clear Zone definition in Chapter 325.

Ramp Terminals or Intersection Turn Radii See Chapter 910 for definition.

Ramp Terminals or Intersection Angle See Chapter 910 for definition.

Ramp Terminals or Intersection Sight Distance See Chapter 910 for definition.

Pedestrian and Bike refers to the facilities along a route for accommodation of pedestrians and/or bicycles. See Chapter 1020 for bicycles and Chapter 1025 for pedestrians.

Crossroads at Ramps Lane Width is the lane width on a crossing alignment intersected by a ramp. See Lane Width definition in Chapter 325.

Crossroads at Ramps Shoulder Width is the shoulder width on a crossing alignment intersected by a ramp. See Shoulder Width definition in Chapter 325.

Crossroads at Ramps Pedestrian and Bike refers to the facilities on a crossing alignment intersected by a ramp, for accommodation of pedestrians and/or bicycles. See Pedestrian and Bike definition.

Crossroads at Ramps Fill/Ditch Slopes is the fill/ditch slope along a crossroad intersected by a ramp. See Fill/Ditch Slope definition in Chapter 325.

Crossroads at Ramps Clear Zone is the clear zone along a crossroad intersected by a ramp. See Clear Zone definition in Chapter 325.

Barriers Terminal and Transition Section
See Chapter 325 for definition.

Barriers Standard Run See Chapter 325 for definition.

340.04 Minor Operational Enhancement Matrix Procedures

During project definition and design, the following steps are used to select and apply the appropriate minor operational enhancement matrix. Each step is further explained in this chapter.

- *Select a minor operational enhancement matrix* by identifying the route: Interstate/NHS Freeway, NHS non-freeway, or non-NHS.
- Within the minor operational enhancement matrix, *select the row* by the type of work.
- Use the minor operational enhancement matrix to *determine the documentation and approval levels for the various design elements* in the project. Apply the appropriate design levels and document the design decisions as required by this chapter and Chapter 330.

340.05 Selecting a Minor Operational Enhancement Matrix

Selection of a minor operational enhancement matrix is based on highway system (Interstate/NHS Freeway, NHS non-freeway, non-NHS). (See Figure 340-1.) Figures 325-2a and 2b provide a list of the NHS and the Interstate routes in Washington. The minor operational enhancement matrices are shown in Figures 340-2 through 340-4. Follow *Design Manual* guidance for all projects except as noted in the minor operational enhancement matrices.

Route	Project	
	Freeway	Non-freeway
Interstate	Matrix 1	
NHS	Matrix 1	Matrix 2
Non-NHS	Matrix 1	Matrix 3

Minor Operational Enhancement Matrix Selection Guide
Figure 340-1

340.06 Project Type

Row selection in the design matrices is based on project type or type of work. See 340.03(1). For projects not listed in the matrices, consult the Headquarters Traffic Office and the Headquarters Design Office.

Some projects might include work from several project types. In such cases, identify the design and approval level for each project element. In all cases, select the higher design level and approval level where overlaps are found.

340.07 Using a Minor Operational Enhancement Matrix

The column headings on a minor operational enhancement matrix are design elements. They are based on the following thirteen Federal Highway Administration (FHWA) controlling design criteria: design speed, lane width, shoulder width, bridge width, structural capacity, horizontal alignment, vertical alignment, grade, stopping sight distance, cross slope, superelevation, vertical clearance, and horizontal clearance. For the column headings, some of the controlling criteria are combined (for example design speed is part of horizontal and vertical alignment).

Unlike the design matrices described in Chapter 325, designers using a minor operational enhancement matrix are not required to inventory deficiencies for elements not improved by the minor enhancement project. Similarly, they are not required to justify existing deficiencies not addressed by minor enhancement projects. In the case where improvements to existing features surpass the existing condition but do not meet the design guidelines, Basic Documentation plus Supplemental Coordination (BD+) is required. See 340.09(1).

A **blank cell** on a minor operational enhancement matrix signifies that the design element is beyond the scope of the project and need not be addressed.

For work on ramps on Interstate or NHS freeway routes, there is a requirement to provide assurance of no adverse effect to main line flow. Provide FHWA a copy of the documentation providing assurance or process a deviation through FHWA if there is an adverse effect.

(1) Design Level

The minor operational enhancement matrices specify the appropriate design level for the various project elements. The design levels specified are Full and Modified.

Full design level (F) improves roadway geometrics, safety, and operational elements. See Chapter 440 and other applicable chapters for design guidance. Use the current traffic volume with Chapter 440 to evaluate design class for Q Program projects.

Modified design level (M) preserves and improves existing roadway geometrics, safety, and operational elements. See Chapter 430.

Design levels specified in a matrix cell are supplemented with notations for design variances.

(2) Design Variances

Design variances are information packages that justify the introduction of features that are not in accordance with design guidelines. Variances specified in minor operational enhancement project cells include: Design Justification, Level 2, Level 3, or Level 4. See 340.09 for details on documentation requirements.

340.08 Project Approval

Project approval for minor operational enhancement projects authorizes expenditures for the project. The State and/or Region's Traffic Engineer have the responsibility and authority to authorize all expenditures for Q2 Low Cost Enhancements. Delegation of design and/or expenditure approval authority for Q Program funded projects must be identified in writing from the appropriate Traffic Engineer to the person receiving the delegated authority. Such written delegation must identify the specific conditions for which approval authority has been delegated. Design approval authority for PS&E contracts cannot be delegated.

Mechanisms for project expenditure approval vary with the types of projects and the costs involved.

- **Minor-cost projects** are projects normally implemented by state forces directed through maintenance task orders, within the monetary limits established in RCW 47.28.030. Expenditure authority is granted by initialing the work order.
- **Mid-range projects** include: all contract change orders, local agency agreements, or Q Program bid items included in an Improvement or Preservation project, regardless of cost. Maintenance task orders exceeding the monetary limits established in RCW 47.28.030 are included in this category. Expenditure authority is granted by initialing the task order, change order, or agreement memo.
- **PS&E contracts** are stand-alone contracts funded through the Q Program for minor operational enhancement projects. A Design Summary/Approval memorandum must be prepared and signed by the region's Traffic Engineer to approve a project in this category. Figures 340-5a and 340-5b provide a template for the approval memo.

Project development decisions and approvals for "Regulatory" and for "Driver Guidance" projects reside within region or Headquarters Traffic Offices. Projects impacting roadway geometric features in the "Pavement Widening,"

“Rechannelizing Existing Pavement,” “Non-motorized Facilities” or “Roadside” categories are developed jointly by the region’s Traffic Office and the region’s Project Development Office. Depending on the route type, the approval authority may involve the Assistant State Design Engineer and the FHWA.

340.09 Documentation

The minor operational enhancement matrices include a column that specifies the documentation levels for each project type listed. The documentation levels are categorized as Basic Documentation (BD) and Basic Documentation plus Supplemental Coordination (BD+).

In all cases, the documentation must outline the rationale for the project and include backup information sufficient to support the design decisions. Document the roadway configuration prior to implementation of a minor operational enhancement project. Documentation is to be retained in a permanent retrievable file at a central location in each region.

(1) Projects

Basic Documentation (BD) level applies to regulatory or driver guidance projects. Documentation consists of an unstructured compilation of materials sufficient to validate the designer’s decisions. Materials may include: meeting notes, printed e-mails, record of phone conversations, copies of memos, correspondence, and backup data such as level of service modeling, accident data, and design drawings.

A single narrative outlining the decision-making process from start to finish is not required, provided that the materials retained in the file can be traced to a decision consistent with the project design. This level of documentation includes a requirement for inputting the project information into the TRAffic ACTion Tracking System (TRACTS) database at the conclusion of the project.

Basic Documentation plus Supplemental Coordination (BD+) level applies to all projects except regulatory or driver guidance projects.

A more comprehensive evaluation of options and constraints is required for this documentation level. Documentation includes basic documentation with additional information describing coordination efforts with other WSDOT groups having a stake in the project. Document the coordination efforts with the following disciplines: Environmental, Hydraulics, Local Agencies and WSDOT Local Programs, Maintenance, Materials, Program Management, Real Estate Services, Urban Corridors, Utilities, and the general public. This level of documentation also includes a requirement for inputting the project information into the TRACTS database at the conclusion of the project.

(2) Design Deviations

Design Justification (DJ) is a written narrative summarizing the rationale for introduction of a feature that varies from the applicable *Design Manual* guidelines. Include in the narrative sufficient information to describe the problem, the constraints, and the trade-offs at a level of detail that provides a defensible professional judgment. DJs are not intended to have the same level of formality as the Level 2, 3, and 4 deviations. DJs may use written memos, e-mails, or documented discussions with the approving traffic authority. The region’s Traffic Engineer has responsibility for approving Design Justifications. The DJ documentation must include the name and date of the approving authority. At the time the work order is approved, the region’s Project Development Engineer and the Assistant State Design Engineer are to be sent informational copies of the Design Justification, to provide them an opportunity to communicate their concerns. Comment on the informational copy is not mandatory and progress toward project implementation does not wait on a response.

Level 2 documentation serves to justify a deviation to the specified design guidance. Within the document, summarize the project, the design guidelines, the proposed elements that vary from design guidelines, alternatives analyzed, constraints and impacts of each alternative, and the recommended alternative. Level 2 documentation requires joint approval of the region’s Traffic Engineer and region’s Project

Development Engineer. At the time the work order is approved, the Assistant State Design engineer is to be sent an informational copy of the Level 2 documentation to provide an opportunity to communicate concerns. Comment on the informational copy is not mandatory, and progress toward project implementation does not wait on a response.

Level 3 documentation requirements include the level 2 requirements, however the approval process is through the region's Traffic Engineer, and region's Project Development Engineer with final approval from the Assistant State Design Engineer.

Level 4 documentation requirements include the level 3 requirements, however the approval process is through region's Traffic Engineer, region's Project Development Engineer, and the Assistant State Design Engineer with final approval from the Federal Highway Administration on Interstate routes.

Level 2, 3, and 4 design deviation requests are intended to be stand-alone documentation describing the project, design criteria, proposed element(s), why the desired design level was not or can not be used, alternatives evaluated, and a request for approval. Include funding source(s), type of route, project limits, design classification, posted speed, current ADT, and percent truck traffic in the project description. Justification for the design deviation can include project costs, but must be supported by at least two of the following:

- Accident history or potential.
- Engineering judgment.
- Environmental issues.
- Route continuity (consistency with adjoining route sections).
- The project is an interim solution (covering a 4 to 6 year time horizon).

⇩ Project Type	Main Line						Ramps (1)					Ramp Terminals or Intersections			Crossroads at Ramps					Barriers		Doc. Level		
	Sight Dist.	Lane Width	Lane Trans-sition	Shldr Width	Fill/Ditch Slopes	Clear Zone	Sight Dist.	Lane Width	Lane Trans-sition	Shldr Width	Fill/Ditch Slopes	Clear Zone	Turn Radii	Angle	Sight Dist.	Lane Width	Shldr Width	Ped & Bike	Fill/Ditch Slopes	Clear Zone	Term. & Trans. Section		(2) Std Run	
Design Elements ⇄																								
	Regulatory - (Traffic Office Authority)																							BD
	Driver Guidance - (Traffic Office Authority)																							BD
	Pavement Widening																							
	(1-1Q) Turn Lane																							BD+
(1-2Q) Pullout																							BD+	
(1-3Q) Expansion	F/3	F/4	F/3	F/4	F/3	F/3																	BD+	
(1-4Q) Median Crossover	F/3	F/4	F/3	F/4	F/3	F/3																	BD+	
Rechannelize Existing Pavement																								
(1-5Q) Pavement Markings	F/3	F/4	F/3	F/4		F/3																	BD+	
(1-6Q) Raised Channelization																							BD+	
(1-7Q) Left-Turn Channelization 2-Lane Hwys (3)																							BD+	
Nonmotorized Facilities																								
(1-8Q) Sidewalk/Walkway																							BD+	
(1-9Q) Separated Trails																							BD+	
(1-10Q) Spot Improvement																							BD+	
Roadside																								
(1-11Q) Cross Section	F/3					F/3																	BD+	
(1-12Q) Protection	F/3			F/4		F/3																	BD+	
(1-13Q) New Object	F/3					F/3																	BD+	

□ Not Applicable

F Full design level

M Modified design level. See Chapter 430.

DJ Design Justification required and Project Approval by region Traffic, with notification to Headquarters Design.

2 Deviation approval through the region's Traffic and Project Development Engineers, with notification to Headquarters Design.

3 Deviation approval through level 2 and the Assistant State Design Engineer.

4 Deviation approval through level 3, and FHWA on Interstate routes.

BD Basic Documentation required.

BD+ Basic Documentation plus supplemental coordination required.

If a project impacts any design element, the impacted elements are addressed.

Elements not impacted, are not addressed.

For items not meeting the design level provided in the matrix, justification or deviation is required and is processed through the designated approval level, DJ, 2, 3, or 4

For at-grade intersections on NHS routes, apply Matrix 2.

(1) Documentation must provide assurance of no adverse effect to main line flow.

Otherwise process a deviation through level 4

(2) If existing shoulder width is decreased below minimum values, when placing new guardrail or concrete barrier, a deviation request justifying the proposal is required.

(3) Where existing pavement width is 39 feet or greater.

Minor Operational Enhancement Matrix 1 Interstate & NHS Freeway Routes

Figure 340-2

↓ Project Type	Main Line						Intersections			Barriers All		Doc. Level	
Design Elements ⇨	Sight Dist.	Lane Width	Lane Trans- sition	Shldr Width	Fill/ Ditch Slopes	Clear Zone	Turn Radii	Angle	Sight Dist.	Ped & Bike	Term. & Trans. Section	(2) Std Run	BD
Regulatory - (Traffic Office Authority)													BD
Driver Guidance - (Traffic Office Authority)													BD
Pavement Widening													
(2-1Q) Turn Lane	M/2	M/3	F/2	M/3	M/2	F/2	M/DJ	M/DJ	F/DJ	F/DJ	F/3	F/3	BD+
(2-2Q) Pullout	M/2	M/3	F/2	M/3	M/2	F/2	M/DJ	M/DJ	F/DJ	F/DJ	F/3	F/3	BD+
(2-3Q) Expansion	M/2	M/3	F/2	M/3	M/2	F/2	M/DJ	M/DJ	F/DJ	F/DJ	F/3	F/3	BD+
Rechannelize Existing Pavement													
(2-4Q) Pavement Markings	M/2	M/3	F/2	M/3		F/2	M/DJ	M/DJ	F/DJ	F/DJ	F/3	F/3	BD+
(2-5Q) Raised Channelization	M/2	M/3	F/2	M/3		F/2	M/DJ	M/DJ	F/DJ	F/DJ	F/3	F/3	BD+
(2-6Q) Left-Turn Channelization 2-Lane Hwys (3)		DJ		DJ					M				
Nonmotorized Facilities													
(2-7Q) Sidewalk/Walkway	M/2	M/3	F/2	M/3	M/2	F/2	M/DJ	M/DJ	F/DJ	F/DJ	F/3	F/3	BD+
(2-8Q) Separated Trails	M/2				M/2	F/2			F/DJ	F/DJ	F/3	F/3	BD+
(2-9Q) Spot Improvement	M/2	M/3	F/2	M/3	M/2	F/2	M/DJ	M/DJ	F/DJ	F/DJ	F/3	F/3	BD+
Roadside													
(2-10Q) Cross Section	M/2				M/2	F/2			F/DJ		F/3	F/3	BD+
(2-11Q) Protection	M/2				M/2	F/2			F/DJ		F/3	F/3	BD+
(2-12Q) New Object	M/2				M/2	F/2			F/DJ		F/3	F/3	BD+

- ☐ Not Applicable
F Full design level
M Modified design level. See Chapter 430.
DJ Design Justification required and Project Approval by region Traffic, with notification to Headquarters Design.
2 Deviation approval through the region's Traffic and Project Development Engineers, with notification to Headquarters Design.
3 Deviation approval through level 2 and the Assistant State Design Engineer.
BD Basic Documentation required.
BD+ Basic Documentation plus supplemental coordination required.
- If a project impacts any design element, the impacted elements are addressed. Elements not impacted, are not addressed.
 For items not meeting the design level provided in the matrix, justification or deviation is required and is processed through the designated approval level, DJ, 2 or 3.
 For interchange features, apply Matrix 1.
 (2) If existing shoulder width is decreased below minimum values, when placing new guardrail or concrete barrier, a deviation request justifying the proposal is required.
 (3) Where existing pavement width is 39 feet or greater.

Minor Operational Enhancement Matrix 2
 NHS Non-freeway Routes
 Figure 340-3

↓ Project Type	Main Line						Intersections			Barriers All		Doc. Level	
	Sight Dist.	Lane Width	Lane Transition	Shldr Width	Fill/Ditch Slopes	Clear Zone	Turn Radii	Angle	Sight Dist	Ped & Bike	Term. & Trans. Section		(2) Std Run
Design Elements ⇨													BD
	Regulatory - (Traffic Office Authority)												
	Driver Guidance - (Traffic Office Authority)												
	Pavement Widening												
(3-1Q) Turn Lane	M/DJ	M/2	F/DJ	M/2	M/DJ	F/DJ	M/DJ	M/DJ	F/DJ	F/DJ	F/2	F/2	BD+
(3-2Q) Pullout	M/DJ	M/2	F/DJ	M/2	M/DJ	F/DJ	M/DJ	M/DJ	F/DJ	F/DJ	F/2	F/2	BD+
(3-3Q) Expansion	M/DJ	M/2	F/DJ	M/2	M/DJ	F/DJ	M/DJ	M/DJ	F/DJ	F/DJ	F/2	F/2	BD+
Rechannelize Existing Pavement													
(3-4Q) Pavement Markings	M/DJ	M/2	F/DJ	M/2		F/DJ	M/DJ	M/DJ	F/DJ	F/DJ	F/2	F/2	BD+
(3-5Q) Raised Channelization	M/DJ	M/2	F/DJ	M/2		F/DJ	M/DJ	M/DJ	F/DJ	F/DJ	F/2	F/2	BD+
(3-6Q) Left-Turn Channelization 2-Lane Hwys (3)		DJ		DJ						M			
Nonmotorized Facilities													
(3-7Q) Sidewalk/Walkway	M/DJ	M/2	F/DJ	M/2	M/DJ	F/DJ	M/DJ	M/DJ	F/DJ	F/DJ	F/2	F/2	BD+
(3-8Q) Separated Trails	M/DJ				M/DJ	F/DJ				F/DJ	F/2	F/2	BD+
(3-9Q) Spot Improvement	M/DJ	M/2	F/DJ	M/2	M/DJ	F/DJ	M/DJ	M/DJ	F/DJ	F/DJ	F/2	F/2	BD+
Roadside													
(3-10Q) Cross Section	M/DJ				M/DJ	F/DJ				F/DJ	F/2	F/2	BD+
(3-11Q) Protection	M/DJ				M/DJ	F/DJ				F/DJ	F/2	F/2	BD+
(3-12Q) New Object	M/DJ				M/DJ	F/DJ				F/DJ	F/2	F/2	BD+

□ Not Applicable

F Full design level

M Modified design level. See Chapter 430.

DJ Design Justification required and Project Approval by region Traffic, with notification to Headquarters Design.

2 Deviation approval through the region's Traffic and Project Development Engineers, with notification to Headquarters Design.

3 Deviation approval through level 2 and the Assistant State Design Engineer.

BD Basic Documentation required.

BD+ Basic Documentation plus supplemental coordination required.

If a project impacts any design element, the impacted elements are addressed. Elements not impacted, are not addressed.

For items not meeting the design level provided in the matrix, justification or deviation is required and is processed through the designated approval level, DJ, 2 or 3.

For interchange features, apply Matrix 1.

(2) If existing shoulder width is decreased below minimum values, when placing new guardrail or concrete barrier, a deviation request justifying the proposal is required.

(3) Where existing pavement width is 39 feet or greater.

Minor Operational Enhancement Matrix 3
Non-NHS Routes
Figure 340-4

Date Placeholder

TO: (Specify) Region Traffic Engineer¹

THRU:

FROM:

SUBJECT:

Design Approved By:

(Specify) Region Traffic Engineer¹

Date

General Information

SR _____ is a (NHS or Non-NHS) route, and classified as a (Urban or Rural) (Interstate, Principal Arterial, Minor Arterial, Collector or Urban Managed Access Roadway) in _____ County. The posted speed limit is _____ mph. The ADT is, _____ with _____ percent trucks. The project is within a (full, partial, or modified limited access control, or Class 1 - 5 managed access controlled) area.

Project Initiation

How did the project get started? Accident history, constituent call, e-mail, or letter?

Existing Geometrics

What is out there today? Lane, shoulder, sidewalk widths? Turn pockets, etc.?

Project Description

How did you come to the design decision being proposed? What does it resolve for the situation at hand? What options have you looked at? Why were other options not selected?

Proposed Geometrics

What will be out there when you are through? Lane, shoulder, sidewalk widths? Turn pockets, etc.?

¹ For example "Eastern Region Traffic Engineer"

Q Project Design Summary/Approval Template

Figure 340-5a

Resurfacing

If pavement is involved what does the resurfacing report say to use?

Pavement Marking/Traffic Control Devices

What happens with the pavement markings? Signing? Illumination? Signals? Etc.?

Environmental Approval

Did you check with the Environmental Services Office? Are there any issues or permits that need to be addressed? Hydraulics?

Deviations

Are there any deviations? Describe briefly what features are deviated and the date of approval.

Permits

Are there any permits or easements needed? Construction permits? Noise variances? Utility relocations? Detours? Signal? Others?

Project Cost and Schedule

How much do you anticipate spending? When is the project scheduled for advertisement? When do you anticipate the project will be completed?

Sole Source Justification

Some traffic items are sole source and require justification. Have you completed the process?

Work Zone Traffic Control

What happens to traffic, pedestrians, and bicyclists during construction? Is a lane taken or reduced in width? Night work? Shoulder work? Duration? Does Washington State Patrol (WSP) need to be involved?

Local Agency Coordination

Do we need to coordinate with, or notify the city or county? WSP?

We are requesting approval for the Subject project. This project was designed in accordance with Q Program guidelines for Minor Operational Enhancements, Matrix _____ *note matrix title and project type line.*

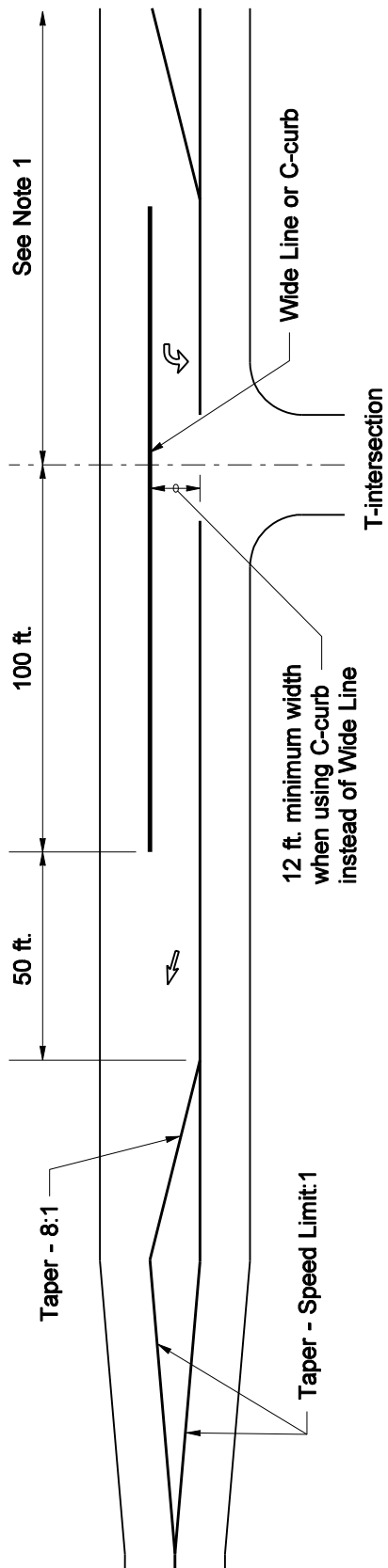
Typist's Initials Placeholder

Attachments: Channelization Plan?
Permits?
Deviations?

cc: Headquarters Design 47329

Q Project Design Summary/Approval Template (continued)

Figure 340-5b



Notes:

1. See Chapter 910 for left-turn channelization.

Refuge Lane for T-Intersections on 2-Lane Highways
Figure 340-6